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CHOOSING READINGS: PORTUGUESE ACADEMIC LIBRARY USERS' OPINION ABOUT PREFERENCES FOR PRINTED BOOKS OR E-BOOKS

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Abstract

The emergence of e-books as resources of scientific information in university libraries has been imposing at the pace of technology, with advantages such as portability, cost or accessibility, assuming that e-reading is being well received and appropriated by library users, who can access scientific information from anywhere. However, recent studies from prior to the COVID-19 pandemic, pointed to the resurgence of paper reading preferences. This study analyses the behavioural trends in the use of scientific information from these two media: printed books and e-books and the way university libraries users choose to use it, particularly in the pandemic context. To this end, a survey is conducted on a sample of users from various Portuguese higher education schools. The first part focuses on the characterization of respondents, which includes data on gender, area of knowledge, academic level they attend. In the second part we seek the opinion about advantages and disadvantages of each medium, frequency of use, choice of medium according to the purpose of reading, devices used, acquisition suggestions for the library. The results allow us to observe the factors that influence and affect the behaviours of users regarding this choice. Studies such as these are important to support the decision in choosing the information resources to be purchased, taking into account user preferences, but also to outline strategies for promoting the use of various media.

Keywords

E-books; Information resources; Information Behaviour; Academic Libraries, COVID-19

1. Introduction

Information technology has brought new reading habits and behaviours all over the world. E-books are becoming increasingly popular especially through the younger populations.

In December 2019, a new coronavirus (SARS-CoV-2), identified in Wuhan (China), began to circulate rapidly, spreading on a planetary scale. This virus causes COVID-19 (Coronavirus

Disease 2019), an infectious disease that gives rise to asymptomatic infections and severe illness. According to the World Health Organisation, the majority (around 80%) of patients with COVID-19 may be asymptomatic or oligosymptomatic (few symptoms), and around 20% of detected cases require hospital care because infected individuals have breathing difficulties, of which around 5% may require mechanical respiratory support (Portugal, Ministry of Health, 2020). COVID-19 has caused a serious public health situation worldwide, causing a dangerous pandemic.

Since March 2020, the Portuguese government declared successive States of Emergency and enacted sanitary sieges on cities, bans on exits to public roads, blocks on trade, businesses, schools, universities, tourism, restrictions on the movement of people between regions and between countries, that is, prohibited a large part of human activities to prevent the spread of this disease. In this situation, remote working, e-commerce and the development of most activities through the Internet have benefited from this.

Public services and university libraries have been no exception. The professionals working in these services have been trying to find and develop new solutions to facilitate access to information and support users in these difficult times of fear, illness and death.

The research carried out in February and March 2020 on behavioural trends in the use of printed books or e-books was a case study in Portuguese university libraries (Melo, Sanches, Sá, Cruz, Novo, 2021) and we consider it relevant to continue the analysis of the impact of COVID-19 on behavioural trends in the use of printed books or e-books, following up with a survey on this topic in February and March 2021

The main aim of this work is to observe the results obtained in a survey to verify what impact the COVID-19 pandemic had on the reading behaviour of books and e-books in the Portuguese academic population. A literature review is made, then we refer the methodology used in this research, the data obtained and finally we present the results discussed and the main conclusions.

2. Literature review

In the face of the Covid-19 pandemic scenario and the social isolation to which everyone has been subject to, professionals from different areas, including teachers and students, were suddenly confined. The solution for teaching activities was distance learning, nicknamed in this special circumstance, ERT. In fact, because it is a response to a social, health or cataclysmic crisis, the most appropriate concept is that of Emergency Remote Teaching - ERT. E-learning, as an area of activity and research, studies and implements the best solutions for the processing and structuring of information in the human brain (from a cognitive point of view, it is known that online learning is more demanding). In its purest form, e-learning is based on asynchronous technology and can include non-virtual work - for example, sending written work, similar to what was done in correspondence teaching. Emergency remote education, on the other hand, is mainly based on synchronous technology: classes are given in real time, by videoconference, as Education specialist Neuza Pedro says in an interview on the topic (Santos, Valdeira, Carneiro, 2020). In Portugal, particularly in higher education, adaptation to remote education was quick and, in most cases, simple. However, we cannot hide a deficit in digital training by teachers and students. Nevertheless, a week after the suspension of the face-to-face classes, remote education was in action. This happened, in part, because many of the programs and systems used were already available, although they could be unknown (Santo, Valdeira, Carneiro, 2020). At the same time, it was important to understand how adaptation to these circumstances was developing. In April 2020, the Faculty of Psychology circulated a questionnaire on the adaptation of the students of the University of Lisbon to the measures associated with the Pandemic. The questions asked fit into three areas: the technological resources available to them to monitor online classes and to carry out other academic activities; their adaptation and satisfaction in the monitoring of distance classes; and your physical and psychological well-being. The study revealed that more than 80% of students feel well or very well physically, a positive fact that is far from being accompanied by a psychological well-being that was much more fragile, revealing that

almost half of the student's manifest feeling bad or very bad psychologically (Faculty of Psychology, 2020). Surveys help to get a sense of the degree of student satisfaction in the face of changes to the usual face-to-face teaching method, as well as the impact the pandemic is having on their personal and academic lives. But it will be important to start from this data to solve some circumstantial problems, which have arisen in the meantime, and even others that were already there and that have only now become visible.

Also, libraries have reinvented themselves, presenting a set of means in order to continue to provide their services of excellence, which distinguishes them, through which they teach, evaluate and provide the services they used to be in person. According to a recent study on the response of Portuguese public libraries (Alvim, Silva, Borges, 2021), the pandemic period due to Covid-19 has urged libraries to adopt new ways of working in times of lockdown, using information and communication technologies, namely social media like Facebook. Some libraries have collaborated with cultural agents, liaising with the municipality itself their response to the community, and maintaining a channel of communication with users during this period. Additionally, libraries have also played an important role in the fight against misinformation among the population to adopt measures to control the pandemic. In conclusion, the authors refer that most public libraries have been social influencers, disseminating hashtags with incredibly positive and encouraging messages through the communication channels, trying to keep their users less isolated and still in communication with libraries. Nevertheless, there was no evidence about any changing on the preferences on print or e-books.

In a previous work, some authors of this study looked at the choice of reading medium - printed or e-books - concluding that, in a university context it varies fundamentally according to the purposes of using the information: the electronic format is used mainly in the work of data related to study, teaching and research and the printed format, in turn, is more linked to reading during leisure time and, above all, with a type of study that requires concentration and a deeper study of topics and informative content (Melo, Sanches, Sá, Cruz, Novo, 2021). Authors referred that digital documents have proven to provide less waste of resources and a smaller ecological footprint, more accessibility, more portability, speed and convenience; But they also imply, negatively, the need for reading devices (they are expensive); and cause greater propensity for dispersion and eye strain. On the contrary, printed books were characterized by being an experience of physical handling, ease of reading and sensory pleasure, but with the disadvantage of less availability of copies and less speed of updating content.

Following this study, which showed that in Portugal there is still a preference for the printed book over the digital one, it was considered opportune to observe variations in behaviour in relation to reading and its environment, with the emergence of the COVID- 19 pandemic and, with the closure of universities and their libraries worldwide, due to the emergency created, it seems useful, now, to collect data and research on the behavioural changes that are observed with this particular situation.

Davies (2020), refers that in total, more than 3.5 million additional e-books were borrowed between the end of March and mid-August of 2020, according to the charity Libraries Connected, an increase of 146%. Adding audiobooks and e-comics, there was an increase of 5 million digital items borrowed. And adds that more than 75% of libraries delivered online services during lockdown.

Interest in the impact of the pandemic on library services (Goddard, 2020; Gmiterek, 2021; Landoy & Færevaag, 2020; Smith, 2020) and on the reading habits and preferences of its users (Connell, Wallis, Comeaux, 2021; Martzoukou, 2020; Parikh, & Vyas, 2020) has been emerging all around the world, even leading some authors to claim free access to e-books (Jones, 2020). Koscieljew (2020) summarized the main changes, which included support for the population in solidarity; provision of information; maintenance of services; digital migration of services; arrangements in workspaces; concerns about health and proper hygiene; combating disinformation; external collaborations with public health agencies; and new partnerships with the industry, including publishers. In India, the interest of library users to read digital content and in particular e-books, has also emerged. Apart from reading more content, users have found their

unique ways to involve them in various learning, leisure and hobbies to maintain a good balanced mental health condition during isolated indoor lockdowns (Parikh, & Vyas, 2020). Additionally, libraries around the world are providing support to digital literacies' development (Martzoukou, 2020; Smith, 2020).

Taking all these aspects into account, we were interested in characterizing the reality of Portuguese libraries, based on an analysis of preferences regarding the use of printed and digital media in the pandemic context.

3. Methods

This study analyses the reading behaviour trends regarding the information support (paper and digital) and also the impact of the COVID-19 pandemic. It was developed in partnership with Portuguese university institutions, namely: Faculdade de Medicina Dentária and Instituto de Educação, both from the University of Lisbon and Faculdade de Ciências, from the University of Porto.

In this research we developed the following topics: selection of specific indicators based on the literature review; creation of a questionnaire; data collection through an online questionnaire; data analysis by the mixed method (quantitative and qualitative data).

The questionnaire was composed of 9 items, which were as follows: 3 questions to characterize the user - gender, age, type of user (Teacher/student/researcher, etc.), typology of library frequented (university, public, other and does not use libraries); 3 questions to study the user's opinions on the characterization of printed books/e-books, devices used for reading and preference for reading in digital/print format; a question on changing reading habits during the COVID-19 pandemic; and finally an open question to obtain opinions and qualitative data. The Table 1. shows the composition of the universe studied.

Table 1. Constitution of the universe studied

Institution	FCUP	FMDUL	IEUL	Total
Totals	4393	791	919	6103

The universe studied consists of about 6103 people from the Portuguese academic population. The online questionnaire was produced using Google tools (Google Forms). 263 valid responses were obtained.

4. Results

4.1 Quantitative Data

The Figure 1. shows the composition of the sample according to gender. The sample is 27% male 73% female.

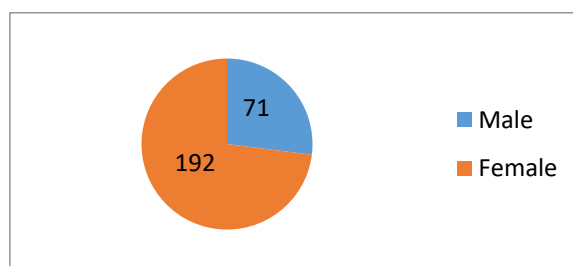


Figure 1. Composition of the sample by gender

The Figure 2 shows the age distribution of the respondents, with most responses coming from respondents between 18 and 24 years old, corresponding to university students.

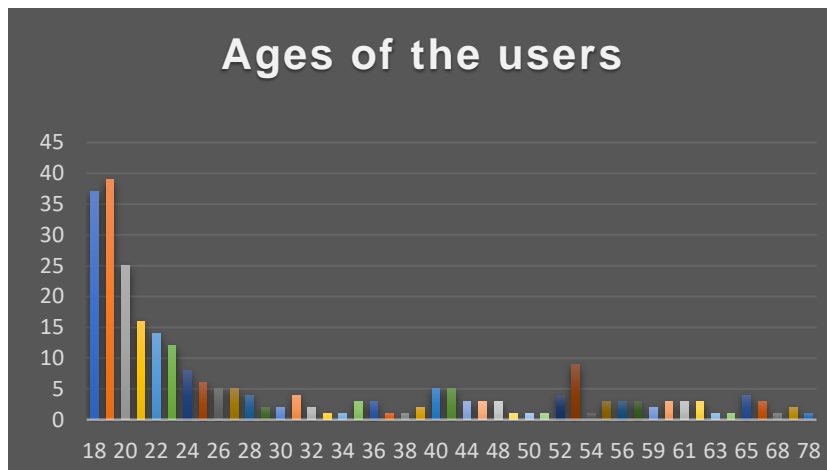


Figure 2. Frequency of respondents by age

The Figure 3. shows absolute frequency of respondents by the library typology- attended university, public and other libraries. As we already note most of the respondents are students.

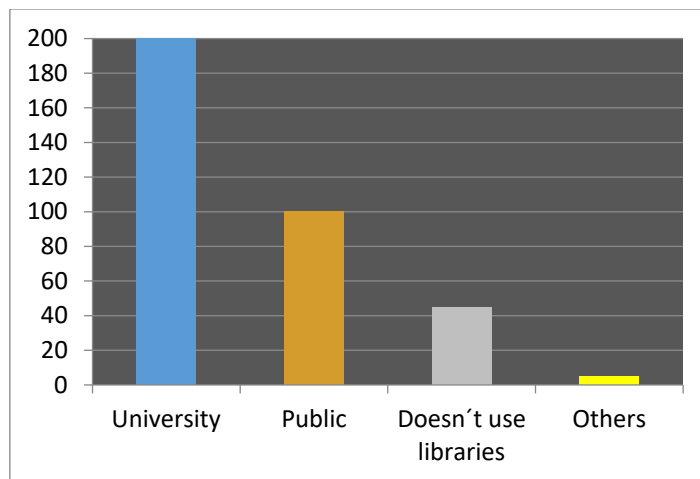
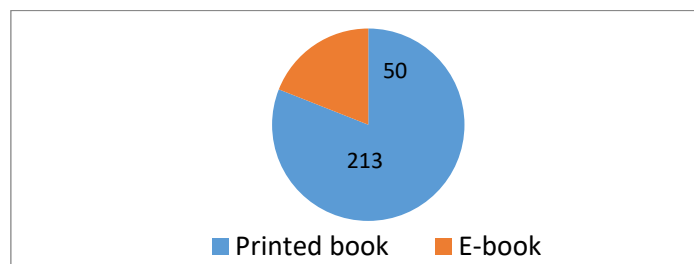


Figure 3. Frequency of use libraries by type

According to the survey conducted, 213 respondents prefer to read paper books while 50 stated that they like to read e-books. Figure 4 presents the preferred reading books or e-books. Next, we will see data related to the characterisation of the type of reading in paper and digital format.



The Figure 4. Preferred reading books or e-books

Table 2. Characteristics of the formats

Characteristic	Printed Book	E-book
Cheaper	41	222
Easier to use	189	74
Easier to transport	53	210
Causes more eye strain	18	245
Causes lack of concentration	23	240

Table 2 shows data obtained regarding the characteristics of the formats under study (paper and digital versions).

Table 3. Reading habits changing due to the COVID-19 pandemic

Type of material	Less reading	Same reading	More reading	Total
Printed material	92	119	52	263
Digital material	11	95	157	263
Reading for pleasure	47	139	77	263
Reading for information	10	117	136	263
Reading for studying	6	133	124	263

In Table 3 we can see the responses obtained to the question which indicate to what extent your reading habits have changed due to the pandemic of COVID-19. Figure 7 shows the reading habits which have changed due to the COVID-19 pandemic.

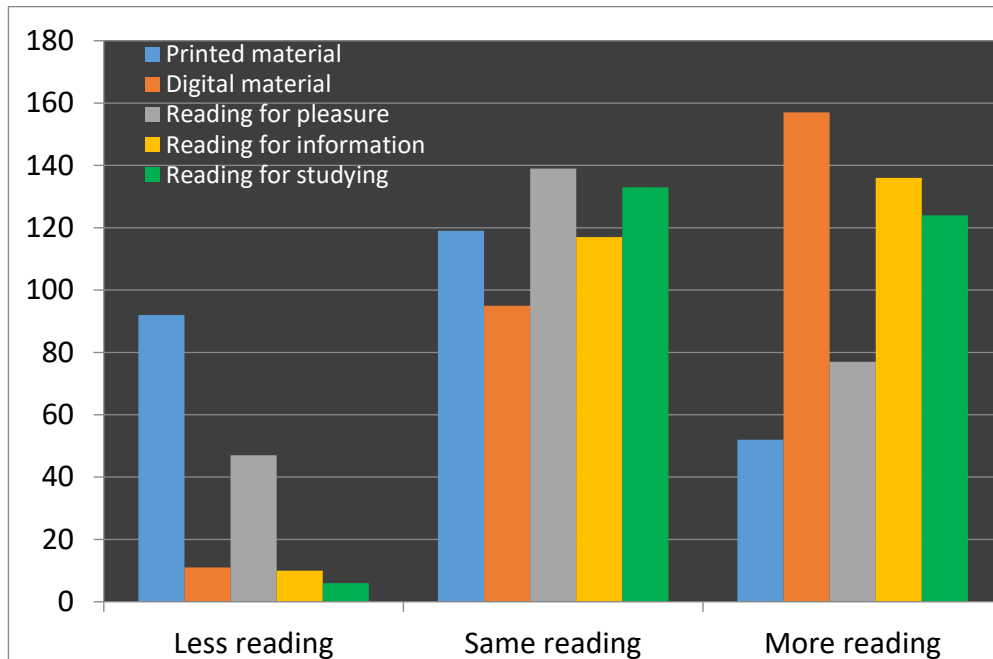


Figure 7. Reading habits changing due to the COVID-19 pandemic

4.2 Qualitative Data

Qualitative data obtained refer to the open question of the survey and express the opinion of a few respondents (11) who want to clarify their quantitative responses. Therefore, they are compatible with the latter, reinforcing the results presented above.

The preference for the digital format is pointed out for several reasons: for being more convenient, practical, easier to access, allowing updates of content, research and also for the advantages for users with vision problems.

Given the circumstances of COVID-19, the closure of academic libraries had a significant impact on students' study habits and routines, with sudden and lasting limits on access to print materials, thus contributing to an increased access to digital formats of information namely e-book collections and databases.

At the same time, respondents also express their preferences about reading books: to read in print format is considered more pleasant for leisure and fun, as it is an easy and practical format to transport, that helps stimulate the imagination and the pleasure of the feel and scent of the sheets of paper.

5. Discussion

The sample of this study is mostly female (73%), and male (27%) from the academic university population. These data are in accordance with reality. In recent years, more women than men have graduated from school of high education (PORDATA, 2021).

81% of the respondents prefer to read paper books while 19% stated that they like to read e-books. These data reveal that, contrary to what could be judged with the advent of digital technology and the COVID-19 pandemic time a large majority of people prefer reading on paper - book.

The age range of the sample is from 18 to 78 years. However, it is evident that the greatest predominance of respondents is in the 18-24 age range, which characterises higher education students.

On the characteristics related to books and e-books the data reveals that books are cheaper and easier to use while e-books are easier to carry, cause more eye strain and result in a greater lack of concentration.

The data from this case study shows the following evidence of reading habits in relation to printed and digital material: in the academic population studied there was more reading in digital reading material (157) and more reading of information such as news (136) and studies (124). In most of them with no change in leisure reading behaviour being observed in the academic community in Portugal. In other studies, namely in Brazil, leisure reading increased with the lockdown of the COVID-19 pandemic (Melo, Sanches, Sá, Cruz, Novo, 2021).

6. Conclusions

In March 2020, a very serious public health crisis, caused by COVID-19, led to the closure of universities, their libraries and bookshops all over the world. Access to books has been restricted so it will be very useful, in the coming years, to collect data and research the changes in behaviour that are observed with this particular situation.

In the study carried out on a Portuguese academic population (University of Lisbon and University of Porto), during the COVID-19 pandemic period, it was found that the choice of reading medium varies fundamentally according to the objectives of information use: the electronic format is used for study, teaching, learning and current news. Printed format, on the other hand, is more linked to leisure time reading.

Digital documents have proven to be: less wasteful of resources and smaller ecological footprint, have greater accessibility, greater portability, speed and convenience; the need for (expensive)

reading devices; and greater propensity to scatter and eye strain. These findings converge with the study conducted in 2020, in the period just before the pandemic times (Melo, Sanches, Sá, Cruz, Novo, 2021).

This research revealed that printed books were characterized by a pleasant physical handling experience, ease of reading and sensory pleasure, lower availability of copies and slower speed of updating content.

Although interesting advantages can be observed in the use of e-books, the study is consistent with previous research, which indicates that in Portugal there is still a preference for printed books over digital books. It should be underlined that e-books gained more relevance in the times of pandemic for studying and learning.

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References

- Alvim, L., da Silva, A. M. D., & Borges, L. C. (2021). How are Portuguese Public Libraries “facing” Covid-19. *Qualitative and Quantitative Methods in Libraries*, 117-131. <http://qqml-journal.net/index.php/qqml/article/view/666>
- Connell, R., Wallis, L., & Comeaux, D. (2021). The Impact of COVID-19 on the Use of Academic Library Resources. *Information Technology & Libraries (ITAL)*. Ahead of print. https://scholar.valpo.edu/ccls_fac_pub/128
- Davies, C. (2020, Oct.23). Library ebook lending surges as UK turns to fiction during lockdown. *The Guardian*. International edition. https://www.theguardian.com/books/2020/oct/23/library-ebook-lending-surges-as-uk-turns-to-fiction-during-lockdown?utm_term=cc749440d95516ab265825678c49e044&utm_campaign=Bookmarks&utm_source=esp&utm_medium=Email&CMP=bookmarks_email&fbclid=IwAR3tyZ3q5WtZgAwKMGVgnuMdE3GMweJnOzsVLorLHroBKanhv5jMUjZHCBY
- Faculdade de Psicologia. Universidade de Lisboa (2020). O impacto psicológico da pandemia nos estudantes da Universidade de Lisboa e a sua adaptação ao ensino à distancia. *ULisboa: revista da Universidade de Lisboa*. 15 (mai.), 16-17. https://www.ulisboa.pt/sites/ulisboa.pt/files/publications/files/ulisboa_15_versao_site_corrigida_0.pdf
- Gmiterek, G. (2021). Polish university libraries social networking services during the COVID-19 pandemic spring term lockdown. *The Journal of Academic Librarianship*, 47(3), 102331.
- Goddard, J. (2020). Public Libraries Respond to the COVID-19 Pandemic, Creating a New Service Model. *Information Technology and Libraries*, 39(4). <https://doi.org/10.6017/ital.v39i4.12847>
- Jones, E. (2020). Vending Vs Lending How Can Public Libraries Improve Access to e-books within Their Collections?. *Public Library Quarterly*, 40(3), 185-202. <https://doi.org/10.1080/01616846.2020.1782702>

Kosciejew, M. (2020). The coronavirus pandemic, libraries and information: a thematic analysis of initial international responses to COVID-19. *Global Knowledge, Memory and Communication*. Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/GKMC-04-2020-0041>

Landøy, A., & Færevåg, T. (2020). How an academic library work edduring the Covid-19 pandemic. *Revista Română De Biblioteconomie și Știința Informării= Romanian Journal of Library and Information Science*, 16(1), 2-12.

[Martzoukou, K.](#) (2020), "Academic libraries in COVID-19: a renewed mission for digital literacy", *Library Management*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/LM-09-2020-0131>

Melo, L., Sanches, T., Sá, I., Cruz, C., Novo, A. (2021). Behavioral trends in the use of printed book or e-book. *Qualitative And Quantitative Methods In Libraries*, 10(1), 83-97. Retrieved from <http://www.qqml.net/index.php/qqml/article/view/694>

Okike, B. I. (2020). Information dissemination in an era of a pandemic (COVID-19): librarians' role. *Library Hi Tech News*. 37 No. 9, pp. 1-4. <https://doi.org/10.1108/LHTN-04-2020-0040>

Parikh, K., & Vyas, P. (2020). A Survey on Reading Habit of Library Users during COVID-19 Lockdown. *Library Philosophy and Practice*, 4216, 1-6. <https://digitalcommons.unl.edu/libphilprac/4216>

PORDATA – Base de Dados Portugal Contemporâneo (2021). *Diplomados no ensino superior: por tipo de ensino e por sexo*. URL: <https://www.pordata.pt/Home>

Portugal. Ministério da Saúde. Direção Geral da Saúde. Boletim epidemiológico Situação a 26 de fevereiro de 2020 Infecção por novo coronavírus (COVID-19) em PORTUGAL. (2020). <https://covid19.min-saude.pt/wp-content/uploads/2020/03/Boletim-Informativo-1.pdf> Consultado em: 7de abril de 2021

Santos, A. C., Valdeira, A. L., Carneiro, H. (2020). À distância de um ecrã: o ensino remoto de emergência. *ULisboa: revista da Universidade de Lisboa*. 16 (out.), 22-27. https://www.ulisboa.pt/sites/ulisboa.pt/files/publications/files/revista_ulisboa_16_vf.pdf

Smith, J. (2020). Information in crisis: Analysing the future roles of public libraries during and post-COVID-19. *Journal of the Australian Library and Information Association*, 69(4), 422-429. <https://doi.org/10.1080/24750158.2020.1840719>